MYRAN MAXSON FREDRICK

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IDENTIFYING THE LEARNING APPROACHES OF UNIMAS FIRST YEAR STUDENTS

Myran Maxson Fredrick

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IDENTIFYING THE LEARNING APPROACHES OF UNIMAS FIRST YEAR STUDENTS

MYRAN MAXSON FREDRICK

This project is submitted
in partial fulfilment of the requirements for a
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This project entitled “Identifying the Learning Approaches of UNIMAS First Year Students” was prepared by Myran Maxson Fredrick and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfilment of the requirements for a Bachelor of Science with Honours (Cognitive Science).

Received for examination by

(ASSOC. PROF. DR. NORAZILA ABDUL AZIZ)

Date

Grade

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ABSTRACT

Nowadays, the need for outstanding graduates that possess great problem solving and critical thinking skills are rising not only in the context of Malaysia, but also in the context of global competitiveness. Higher learning institutions are entrusted to produce excellent graduates every year, and educators are striving to strategize their teaching that can instil learning which produces high academic achievements. This aim of this study was to identify the learning approaches of UNIMAS first year students. The equally important aim of this study was to investigate the relationship between the learning approaches and academic achievement. This study uses the ASSIST questionnaire as the instrument to obtain information on the dominant conception of learning, learning approaches and preferences for different kinds of teachings. A total of 360 students responded to the questionnaire. The results show that the student's dominant learning approach are the deep learning approach. The result also shows the nature of the relationship between learning approaches and academic achievement in which all of them are discussed along with previous studies done on approaches to learning.

Keywords: *ASSIST, learning approaches, academic achievement, higher education institutions, conceptions of learning, deep learning approaches, strategic learning approaches, surface learning approaches*

ABSTRAK

Pada masa kini, kepentingan untuk graduan yang cemerlang yang memiliki kemahiran penyelesaian masalah yang baik dan daya pemikiran yang kritis telah meningkat bukan sahaja di dalam konteks Malaysia, tetapi juga dalam konteks antarabangsa. Pusat pengajian tinggi telah diberi kepercayaan untuk melahirkan graduan cemerlang setiap tahun, dan para pemgajar sedang berusaha untuk mengajar secara strategik supaya dapat menanamkan pembelajaran yang menghasilkan pencapaian akademik yang tinggi. Kajian ini bertujuan untuk mengenal pasti pendekatan pembelajaran yang digunakan oleh pelajar tahun satu UNIMAS. Tujuan lain dalam kajian ini adalah untuk menyiasat hubungan di antara pendekatan pembelajaran dan pencapaian akademik. Kajian ini menggunakan boring soal selidik ASSIST sebagai instrumen untuk mendapatkan maklumat mengenai konsep pembelajaran yang dominan, pendekatan pembelajaran yang dominan, dan pilihan untuk kepelbagaian jenig peangajaran yang dominan. Jumlah keseluruhan yang memberi maklum balas kepada boring soal selidik ini adalah seramai 360 orang pelajar. Hasil kajian mendapati pendekatan pembelajaran yang dominan di kalangan responden adalah pendekatan pembelajaran mendalam. Kajian ini juga mendapati hasil yang menunjukan sifat hubungan di antara pendekatan pembelajaran dan pencapaian akademik, di mana hasil-hasil tersebut akan dibincangkan bersama kajian-kajian yang telah dilakukan di masa lepas mengenai pendekatan pembelajaran.

Kata kunci: ASSIST, pendekatan pembelajaran, pencapaian akademik, pusat pembelajaran tinggi, konsep pembelajaran, pendekatan pembelajaran mendalam, pendekatan pembelajaran strategik, pendekatan pembelajaran permukaan

CHAPTER 1: INTRODUCTION

1.0 Overview

This is the study about the three approaches to learning which is deep learning approach, surface learning approach and strategic learning approach. This chapter discusses the background of the study, problem statement, research objectives, and the research framework of this study. This chapter also presents the limitations and the definitions used in the study.

1.1 Background of study

In higher education, continuous assessment is crucial in maintaining student's learning quality (Penglase, 2004). Multiple studies have shown that student's academic performances in higher learning institutions are closely related to their preferred learning approaches such as (Duff, Boyle, Dunleavy, & Ferguson, 2004), (Diseth, Pallesen, Hovland, & Larsen , 2006), and (Lu, Yu, & Liu, 2003). Studies on student's learning approaches are important to help academicians and the students themselves to understand how to strategically utilize different learning approaches to effective solutions on problem solving required in their studies. The use of the right learning approach can help students in finding better solutions in the problem solving activity in their learning processes (Magno, 2011).

According to Prat-Sala and Redford (2010), the student's different skills, strategies, and processes used in their learning have resulted to the study on the student's learning approaches, a field which has an increased popularity since the last few decades. The idea of approaches to studying was initially derived from Marton and Saljo (1976) research ideas on approaches to learning. The early study by Marton and Saljo has emphasized the difference between two

learning approaches, which is the deep learning approach and the surface learning approach (Prat-Sala & Redford, 2010).

Deep and surface learning approaches are two different learning approaches introduced by Marton and Saljo in their research in 1976 on higher education students. According to Biggs J. , (1999), students who uses deep learning spontaneously are referred to as "academic students" and students that uses surface learning approaches are referred to as "non-academic students" in which they are not engaged in a meaningful learning process. However, Biggs continued to state that deep and surface learning approaches are not to be used to categorise students learning style, but as an approach in which students must master using both approaches in their studies to benefit learning at its best.

In 1978, Marton and Saljo, due to the confusion of academicians regarding their deep and surface approaches term, clarified in their new paper that these approaches are not learning styles, but rather to describe specific actions that students take based on their perception on tasks given to them in their study activities which involves intention (Entwistle N. J., 1991). In other words, deep and surface learning approaches are to be used in describing how student's engage in their learning based on tasks given to them and their perception of that tasks. Generally, deep approaches signifies a meaningful learning and surface learning signifies a repeated learning, which is just to reproduce the subject that is being learned.

Another approach to learning was coined by Ramsden in 1981 as quoted by (Entwistle N. J., 1991), which is the strategic approach. Students adopting strategic approach assesses a given situation and decide on which type of learning would benefit them the most to achieve the highest mark possible (Entwistle N. J., 1991). He continued to state that students that adopt strategic learning approach uses deep and surface learning approach alternately at the same time with their way of studying being strongly influenced by what they anticipated of the rewards

that will be given to them. There are many studies which relate the learning approaches to the student's performance in higher learning institutions.

1.2 Problem statement

It is important to investigate students learning approaches in collaboration with Malaysian higher education institutions to produce excellent and versatile graduates in every aspect. To fulfil these requirements, students are expected and required to be more competent, creative and versatile professionals. This makes learning approaches in solving problems important to be studied. According to Fung (2010), it has been argued that the higher education in Malaysia is still based on 'reception-based' learning in which most students depends on memorizing information for the sake of passing their exams. Therefore, the learning approaches that the students use may determine and affect the outcome of their perception towards class activities such as class discussions, presentations and also when participating in class assessments.

Nowadays, higher learning institution encourages learners to comprehend knowledge from various disciplines and to make necessary connections among them beyond well-structured context and through the real world problem solving experience (Shaari, et al., 2011). On 13 March 2015, Tan Sri Muhyiddin Yassin says that he is shocked with the poor performance of Malaysian students in international assessments tests like TIMMS and Pisa in which Malaysian students ranked bottom third, not the top. He continues to state that he is baffled despite the large RM56 billion budget allocated for Malaysian Ministry of education for the year 2015, Malaysia ranked 52 out of the 65 countries according to Pisa's result, 39 out of 44 under Pisa's first assessment on creative problem-solving (Ibrahim, 2015). The mathematics and science scores also declines drastically despite efforts being made by the

Ministry of Education to produce excellent and versatile Malaysian students (Ibrahim, 2015). Therefore, it is important to investigate the various factors of the decline in Malaysian students' quality, especially the learning approaches used as learning approaches are one of the vital factor in student performance. According to (Zainal Abedin, Jaafar, Husain, & Abdullah, 2013), there are many studies that relate learning approaches to performance in education such as the recent studies by Ryan and Irwin (2004), Huy. P. Phan (2006) and Tarabashkina, L and Lietz, P. (2011) that examined how students personal values influences their approaches to learning and in turn, were related to their achievement. They have found that students which are more inclined to use the surface learning approach had lower academic performance. The study by Kember, Jamieson, Pomfret, & Wong (1995) concluded from their observation that students that uses surface learning approach took a long time to study, have high attendance in class, but achieved poorly on their academic performance while the students who uses deep learning approach are not necessarily good in their academic performance, unless they are putting a sufficient effort on their learning process. Previous researches on learning approaches relationships with different variables have been done in Malaysian higher learning institutions such as (Abdullah, 2004), (Fung, 2010), (Shaari, et al., 2011) and (Zainal Abedin, Jaafar, Husain, & Abdullah, 2013) using different instruments but none of this researches are done in the Sarawak's higher learning institutions. In this study, the learning approaches are investigated in UNIMAS using the ASSIST questionnaire as the instrument.

1.3 Objective

1.3.1 Main objective

The aim of this study is to identify UNIMAS first year's students predominant learning approaches according to ASSIST (Approaches and Study Skills Inventory for Students) inventory. The learning approaches are deep learning approach, surface learning approach and strategic learning approach.

1.3.2 Specific objectives

1. To identify UNIMAS First Year students dominant conceptions of learning.
2. To identify UNIMAS First Year Students approaches to learning.
3. To determine the relationship between the three types of student learning approach and students current CGPA performance.

1.4 Research questions

Three research question were formulated in this study.

Research question 1: Is there a dominant conception of learning among UNIMAS first year students?

Research question 2: Is there a dominant type of learning approach among UNIMAS first year students?

Research question 3: Is there a dominant type of preferences for different types of course and teaching among UNIMAS first year students?

1.5 Research hypotheses

Three hypotheses were formulated for this study.

Ha1: There is a significant relationship between deep learning approach and student performance.

Ha2: There is a significant relationship between strategic learning approach and student performance.

Ha3: There is a significant relationship between surface approach and student performance.

1.6 Definition of terms

1.6.1 Deep learning approach

Conceptual Definition

The intention to extract meaning produces active learning processes that involve relating ideas and looking for patterns and principles on the one hand (a holist strategy) and using evidence and examining the logic of the argument on the other (serialist) (Entwistle N. , 2000).

Operational Definition

Students that learns the meaning of an information and conducts own studies outside of class based on self-effort to comprehend more and are able to relate new information with past knowledge.

1.6.2 Surface learning approach

Conceptual Definition

The intention is to just cope with the task, which sees the course as unrelated bits of information which leads to much more restricted learning processes, in particular to routine memorisation (Entwistle N. , 2000).

Operational Definition

Students that learn through memorizing knowledge to reproduce it. Have little motivation on learning and does not relate new information to past knowledge.

1.6.3 Strategic learning approach

Conceptual Definition

The intention is to achieve the highest possible grades by using organised study methods and good time management (Entwistle N. , 2000).

Operational Definition

Students that combines both deep and surface approach in order to achieve the best results in their studies.

1.6.4 Student performance

Conceptual Definition

The academic achievement gained after completing tasks or assessments given to students regarding what they have learned (Entwistle N. , 2000).

Operational Definition

Student performance: Students GPA results of their first semester assessments.

1.6.5 Conceptual framework

The purpose of this study is to identify the learning approaches and study skills of UNIMAS first year's students and the influence of preferred learning environment, students' performance and gender towards the learning approaches that they uses in their learning activity. The independent variables is the student learning approaches and the dependent variables includes the demographic characteristic, students' preferred learning environments and students performance. Figure 1.1 shows the conceptual framework of this study.

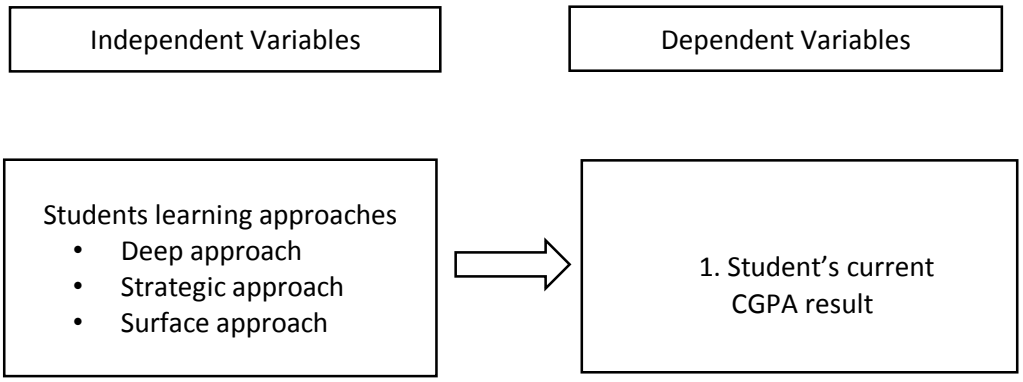

Figure 1: The relationship between student learning approaches with students' performance.

1.6.6 Limitation of study

This study is being conducted in UNIMAS, on nine faculties. Through this research, only first year students will be the participants. However, the result could not be used to generalize the whole UNIMAS students as this study only involves first year students. The demographic factors that are going to be investigated are only gender and the background of study. Other demographic factors such as race, place of origin and also age are not being taken account in this study.

CHAPTER 2: LITERATURE REVIEW

2.0 Overview

This chapter discusses the term and definitions of the three learning approaches, which is the deep learning approach, surface learning approach and strategic learning approach and also the related past studies.

2.1 Learning approaches

2.1.1 Deep learning approach

Approaches to learning was the term that Marton and Saljo coined in their research in 1984. The approaches to learning term was initially based on Marton and Saljo research in 1976, in which their research leads to the classification of two levels of processing that students take in their learning activities (Entwistle N. J., 1991). However, due to the confusion of the term with the term related to memory processes and to make it clearer that "approach" included not only processes but also intention, Marton and Saljo renamed their term into learning approaches. Initially the idea of deep and surface learning approach was proposed by Marton and Saljo (1976a, 1976b) (Hamm, 2010).

John Biggs example of deep learners are as follows (Biggs J. , 1999),

"Susan is academically committed; she is bright, interested in her studies and wants to do well. She has clear academic and career plans, and what she learns is important to her. When she learns, she goes about it in an "academic" way. She comes to the lecture with relevant background knowledge and a question she wants answered. In the lecture, she finds the answer to that question; it forms the keystone for a particular arch of knowledge she is constructing.

She reflects on the personal significance of what she is learning. Students like Susan virtually teach themselves, they need little help from educators."

John Biggs uses this persona as his example of a student whom uses deep learning approach in learning activities. A deep learner have a deep interest in their learning subject. They engage actively in their learning activity, often searches related information of their subjects outside of lecture classes. They learn to understand the subject and can relate new ideas with their past knowledge. Deep learners are learners which learns with interest and motivation (Entwistle N. , 2000).

2.1.2 Surface learning approach

Surface learners are the opposite of the students who uses deep learning approach. John Biggs example of surface learners are as follows ((Biggs J. , 1999),

"Robert is at a university not out of a driving curiosity about a particular subject, or a burning ambition to excel in a particular profession, but to obtain a qualification for a job. He is not even studying in the area of his first choice. He is less committed than Susan, and has a less developed background of relevant knowledge; he comes to the lectures with no questions to ask. He wants only to put in sufficient effort to pass. Robert hears the lecturer say the same words as Susan heard, but he does not see a keystone, just another brick to be recorded in his lecture notes. He believes that if he can record enough of these bricks, and can remember them on cue, he'll keep out of trouble come exam time."

John Biggs uses this persona as his example of a student who uses surface learning approach. According to (Entwistle N. , 2000), surface learners are learners with no motivation on learning. They uses rote learning to memorise the important keywords of a subject, to be

memorised. Rote learners are learning only to reproduce what they are learning (Richardson, 2005).

2.1.3 Strategic learning approach

According to Lublin (2003), the strategic or achieving learning approach is the approach in which students take when they wish to achieve positive outcomes in terms of obtaining a pass or better grade of a subject. He continues to state that strategic learners:

1. Intend to obtain high grades

2. Organise their time and distribute their effort to greatest effect.

3. Ensure that the conditions and materials for studying are appropriate.

4. Use previous exam papers to predict questions.

5. Are alert to cues about marking schemes.

He continued to cite from Entwistle (1987); Biggs (1987), this approach when allied to a deep approach to learning in the subject would seem likely to deliver both an intelligent engagement with the subject as well as success in the subject.

2.2 Review of related studies

2.2.1 Constructivism and Phenomenography

Learning has been the most popular subject by psychologists for the whole of this century but surprisingly there are only little results in improved teaching (Biggs J. , 1999). The reason is that psychologists are more concerned on developing the grand model and theory of the ultimate learning model rather than studying the contexts in which people learns such as